

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

David M. Skinlo

Serial No: 10/665,440

Filed: September 17, 2003

For: ELECTRIC STORAGE BATTERY
CONSTRUCTION AND METHOD OF
MANUFACTURE



Art Unit: 1745

Examiner: YUAN, Dah Wei D.

MS Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPELLANT'S BRIEF

I. **REAL PARTY IN INTEREST**

The real party in interest is Quallion LLC the assignee of the above referenced application.

II. RELATED APPEALS AND INTERFERENCES

This Application is a Divisional of U.S. Patent Application serial number U.S. Patent Application Serial No. 10/167,688. U.S. Patent Application serial number 10/666,790 is also a Divisional of U.S. Patent Application serial number U.S. Patent Application Serial No. 10/167,688. In U.S. Patent Application serial number 10/666,790, a Notice of Appeal was filed on 9/5/2007. The associated Appeals Brief has not yet been filed.

U.S. Patent Application serial number 10/666,873 is also a Divisional of U.S. Patent Application serial number U.S. Patent Application Serial No. 10/167,688. In U.S. Patent Application serial number 10/666,873, a Notice of Appeal was filed on 7/2/2007. The associated Appeals Brief was filed on September 25, 2007.

U.S. Patent Application serial number 10/666,861 is a Continuation of U.S. Patent Application serial number U.S. Patent Application Serial No. 10/167,688. In U.S. Patent Application serial number 10/666,861, a Notice of Appeal was filed on 6/14/2007. The associated Appeals Brief has not yet been filed.

III. STATUS OF CLAIMS

The application under appeal includes pending claims 66-79. Claims 66-79 stand rejected under 35 USC §112 for lack of enablement. Claims 66-79 are appealed.

IV. STATUS OF AMENDMENTS

An Amendment submitted on February 21, 2007 did not amend any claims. In response, a Final Office Action was mailed on April 12, 2007 (pending Office Action). This Appeal Brief is submitted in response to this Office Action. An additional amendment is not submitted with this Appeal Brief.

V. SUMMARY OF CLAIMED SUBJECT MATTER

In accordance with 37 CFR § 41.37c(1)(v), Appellants provide a brief summary of each independent claim involved in the appeal, where each summary refers to the specification by page and line number and to the drawings by reference number. Appellants note that the citations in this "Summary of claimed subject matter" are provided to identify some portions of the specification related to the particular claims. In the interest of brevity, each claim summary does not necessarily include all references to all relevant portions of the specification and drawings. Accordingly, omission of any reference to the specification or to the drawings should not be construed in any way as an intent to relinquish claim scope, or as an implication or statement regarding the conformance with 35 U.S.C. §112. Appellants respectfully submit that the claims should not be construed as being limited to the embodiments cited in the claim summary, and further submit that other embodiments, as well as the Doctrine of Equivalents, may apply in determining claim scope.

Summary of Independent Claim 66

Claim 66 is the only pending independent claim. Claim 66 is directed to a **method** of constructing an electric storage battery. The method includes positioning an electrode assembly in a case (Page 10, line 22-26 and Figure 19). The electrode assembly includes a first electrode strip and a second electrode strip wound around a pin so as to form a spiral roll (Page 9, line 14-22 and Figure 16). The pin is in electrical communication with the first electrode strip (Page 3, line 14, and page 7, line 23-24, and Figure 6). The method also includes fastening a first end cap to the case (Page 10, line 28-30 and Figure 20) such that the pin extends through the first end cap (Page 6, line 28 and Figure 2). The method also includes fastening a second end cap to the case (page 4, lines 17-28, page 12, line 27-28 and Figure 24) such that a tab provides electrical communication between the second electrode strip and the second cap (Page 6, lines 1-3 combined with page 6, lines 9-10, and Figures 17, 19, 20 and 20).

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Rejection of Claims 66-79 under 35 USC §112 for lack of enablement.

VII. ARGUMENT

1. Rejection of Claims 66-79 under 35 USC §112 for lack of enablement.

CLAIM 66

This Rejection Results from an Improper Application of the Law

Claim 66 stands rejected under 35 USC §112 as based on a disclosure which is not enabling. In particular, the Office Action argues that the “‘electrically conductive terminal pin being electrically insulated from the case’ is critical or essential to the practice of the invention, but not included in the claim, is not enabled by the disclosure.” Claim 66 does specify a pin in electrical communication with the first electrode strip and extending through the first end cap but does not specify that the pin is electrically insulated from the case. Accordingly, this rejection appears to be an argument that insulation of the pin from the case is critical to the operation of the claimed method and accordingly must be included in the claimed method.

In support of this rejection, the Office Action cites *In re Mayhew* which is discussed in MPEP §2164.08(c). MPEP §2164.08(c) addresses enablement when an allegedly critical feature is not claimed and is accordingly central to this rejection. This rejection stems from an improper application of the law in MPEP §2164.08(c).

In order to support an enablement rejection under MPEP §2164.08(c), the specification must teach that that insulation of the pin from the case is critical to the claimed method of constructing the battery. For instance, MPEP §2164.08(c) states that “(a) feature which is **taught as critical** in a specification and is not recited in the claims should result in a rejection of such claim under the enablement” (emphasis added). This same section of the MPEP also provides that

this rejection “should be made **ONLY** when **the language of the specification** makes it clear that the limitation is critical for the invention to function as intended” (emphasis added). Accordingly, in order for MPEP §2164.08(c) to be properly applied, the specification must teach that insulation of the pin from the case is critical to the operation of the claimed method of constructing the battery.

A Thought Exercise Illustrating Application of the Law

A simple thought exercise shows why the specification must teach that insulation of the pin from the case is critical in order to support an enablement rejection. For instance, if the Applicant’s specification had taught that insulation of the pin from the case was critical to the method of constructing the battery, then the specification is conversely teaching that the battery cannot be constructed with the pin in electrical communication with the case. If the specification teaches that that the battery cannot be constructed with the pin in electrical communication with the case, then the specification does not teach how to make a battery with the pin in electrical communication with the case and accordingly does not enable construction of a battery with a pin in electrical communication with the case (MPEP §2164). As a result, teaching that insulation of the pin from the case is critical to the method of constructing the battery would effectively teach that construction of a battery having the pin in electrical communication with the case is not enabled and claims that cover construction of a battery with a pin in electrical communication with the case are properly rejected for lack of enablement.

In contrast, now suppose that Applicant’s specification discloses construction of a battery with a pin that is insulated from a case but does not teach that insulation of the pin from the case is critical to the method of constructing the battery. **Without teaching that that insulation of the pin from the case is**

critical to the method of assembling the case, the specification no longer provides the converse teaching that the battery will not operate when the pin is in electrical communication with the case. Removing the converse teaching also removes the basis for the conclusion that the specification does not enable construction of a battery with the pin in electrical communication with the case. Accordingly, without the teaching of criticality in the specification, the enablement rejection that was available in the last paragraph is no longer supported. As a result, an enablement rejection under MPEP §2164.08(c) is only supported when the specification teaches that insulation of the pin from the case is critical to battery construction. Since both logic and MPEP §2164.08(c) show that in order to properly support the pending enablement rejection, Applicant's specification must teach that insulation of the pin from the case is critical to the claimed method battery construction.

The Specification

The Applicant's specification is consistent with the last paragraph of the thought exercise. In particular, the Applicants specification provides an example of a battery where the pin is insulated from the case, however, the specification does not teach that insulation of the pin from the case is critical to the method of constructing the battery. For instance, neither the Abstract, the Summary, the Drawings, nor the Background teaches or even suggests that insulation of the pin from the case is critical to the claimed method. In particular, there is nothing in any of these sections that even suggests that the claimed method cannot be successfully used unless the pin is insulated from the case. **Further, the specification actually teaches embodiments of the battery where the pin need not be insulated from the case.** The Applicant deemed this teaching to be important enough to be included in the "Summary of the Invention" section of the specification. In particular, the specification teaches that the "battery case itself **generally** functions as the other battery terminal" at page 3, line 19-20 (emphasis added). Since the term "generally" indicates a condition that is not always true, this sentence teaches that it is not always true that the case functions as the other battery terminal. Accordingly, this sentence teaches that the case need not function as the other battery terminal. When the case does not function as the other terminal, the pin can be in electrical communication with the case without shorting the battery. If the pin can be in electrical communication with the case, then there is no reasonable argument that the specification teaches that it is critical for the pin to be insulated from the case. Since the specification does not teach that it is critical for the pin to be electrically insulated from the case, MPEP §2164.08(c) provides that rejection for lack of enablement is not supported. Accordingly, the claims need not specify that the pin is electrically insulated from the case and the rejection should be withdrawn.

Response to Argument Presented in Last Office Action

The above argument was largely presented in the Amendment filed on February 21, 2007. In response, the pending Office Action provides ONLY the following argument (the pending argument):

In response to Applicant's arguments, please consider the following comments.

The instant disclosure teaches that the pin constitutes as one of the battery terminals while the battery case constitutes the other terminal. See Abstract. There is no embodiment in the disclose to indicate or suggest that case does not function as a terminal. This is further supported by the recitation where an electric storage battery including a case comprising a peripheral wall of electrically conductive material defining an interior volume and having first and second wall openings communicating with the interior volume, and an electrically conductive terminal pin extending through the first end cap and electrically insulated from the case. See originally filed claim 58. (sic)

In the above citation, the phrase "originally filed claim 58" appears to refer to claim 58 as originally filed in U.S. Patent Application serial number Serial No. 10/167,688 ('688 Application). This Application is a Divisional Application of the '688 Application. Before addressing the above argument, the Applicant addresses the use of a claim to show criticality of an element in that claim.

The Presence of a Particular Feature in a Claim Does Not Establish that the Feature is Critical to Other Claims

The only place that the pending argument cites as teaching the pin insulated

from the case is in “originally filed claim 58.” However, claim 58 cannot serve as evidence of what is critical to operation of other claims. For instance, if the mere presence of a feature in a claim to a battery construction method indicates that the feature is critical to the other battery construction methods claimed in the same application, then the logical application of MPEP §2164.08(c) would require that all of the claims to the battery construction method have the same features. Since there is obviously no such requirement, the presence of a particular feature in a claim to a battery construction method DOES NOT indicate that the feature is critical to the other battery construction method claims.

Further, many of the originally filed claims do not recite that the pin is insulated from the case. In fact, many of the claims that do not recite that the pin being insulated from the case are directed to a “method of constructing an electric storage battery” just like “originally filed claim 58” and just like the claims currently under appeal. For instance, originally filed claims 20-23 and 26-27 are directed to a “method of constructing an electric storage battery” but none of these claims recite that the pin is insulated from the case. In fact, originally filed claim 21 recites “mounting said spiral roll in a case with said pin outer end extending exteriorly of said case to form a first battery terminal” but does not require that the pin is insulated from the case. If it can be argued that the presence of this feature in claim 58 indicates that this feature is critical to something other than claim 58, then it can also be argued that the absence of this feature from claims 20-23 and 26-27 shows that the feature is not critical to all of the disclosed “method(s) of constructing an electric storage battery.” As a result, the presence of this feature in originally filed claim 58 does not indicate that this feature is critical to the currently claimed method.

Because “originally filed claim 58” is the only place that the pending argument cites as teaching the pin insulated from the case and the presence of this

limitation in “originally filed claim 58” does not indicate that this limitation is critical to the operation of other claims, “originally filed claim 58” does not properly support the rejection under MPEP §2164.08(c). As a result, the pending argument does not properly support the rejection under MPEP §2164.08(c).

The Pending Argument Fails to Establish Criticality of Insulating the Pin and Case

The pending argument cites different locations in the specification that the case works as one of the terminals or the pin is insulated from the case. However, the text of MPEP §2164.08(c) makes it clear that mere disclosure of a feature does not make that feature critical. In fact, MPEP §2164.08(c) provides that “(f)eatures which are merely **preferred** are not to be considered critical.” As a result, if the pending argument had gone beyond citing to mere disclosures of these features and had actually cited disclosures stating that these features were preferred, the cited disclosures still would not rise to the level of criticality. Since the pending argument merely cites locations where different features of an embodiment of the battery are disclosed but does not cite anything that goes beyond the level of mere disclosure, there is nothing in these citations that indicates that these features are critical to the method of constructing of the battery. For this reason alone, the pending argument does not properly support a rejection under MPEP §2164.08(c).

Additionally, the pending argument relies on the case functioning as the other terminal as indicated by the first three sentences of the argument. As a result, this pending argument ignores the teaching that “battery case itself **generally** functions as the other battery terminal” (page 3, line 19-20, emphasis added). However, MPEP §2164.08(c) specifically states that this teaching cannot be ignored and must be taken into consideration when it states that in “determining whether an unclaimed feature is critical, **the entire disclosure must be**

considered.” Since the term “generally” indicates a condition that is not always true, properly taking this sentence into consideration shows that the case need not function as the other battery terminal in direct contrast to the argument set forth in the Office Action. Because the pending argument relies on the case functioning as the other terminal, **but** the specification actually teaches that the case need not function as the other terminal, the above argument does not establish that insulation of the pin from the case is critical to the method of assembling the case. Since a rejection under MPEP §2164.08(c) requires that the specification teach that insulation of the pin from the case is critical, but the arguments set forth in the pending Office Action do not indicate that insulation of the pin from the case is critical, the rejection for lack of enablement under MPEP §2164.08(c) is not proper and should be withdrawn.

Each of the reasons set forth above by itself shows that the pending argument fails to satisfy the requirements of MPEP §2164.08(c). However, when these arguments are considered together, the failure of the pending argument becomes even more clear. As a result, the rejection under MPEP §2164.08(c) is not properly supported and the pending claims are properly enabled.

Conclusion

The specification does not teach that it is critical for the pin to be electrically insulated from the case. Further, the arguments set forth in the pending Office Action do not show that insulation of the pin from the case is critical. Since neither the specification nor the pending Office Action establish criticality of insulating the pin from the case, the pending rejection for lack of enablement under MPEP §2164.08(c) is not properly supported and should be withdrawn.

CLAIMS 67-79

Each of these claims depends directly or indirectly from independent claim 66. Since independent claim 66 is enabled, claims 67-79 are also enabled.

Respectfully submitted

A handwritten signature in black ink, appearing to read 'Travis Dodd', written over a horizontal line.

TRAVIS DODD

Reg. No. 42,491

Agent for Applicant(s)

Quallion LLC
P.O. Box 923127
Sylmar, CA 91392-3127
818-833-2003 ph
818-833-2065 fax
travisd@quallion.com

VIII. CLAIMS APPENDIX

1.-65. (canceled)

66. (previously presented) A method of constructing an electric storage battery, comprising:
positioning an electrode assembly in a case,
the electrode assembly including a first electrode strip and a second electrode strip wound around a pin so as to form a spiral roll,
the pin being in electrical communication with the first electrode strip;
fastening a first end cap to the case such that the pin extends through the first end cap;
and
fastening a second end cap to the case such that a tab provides electrical communication between the second electrode strip and the second cap.

67. (previously presented) The method of claim 66, further comprising:
placing electrolyte in the case through the first end cap after said step of fastening the second end cap to the tab.

68. (previously presented) The method of claim 66, wherein fastening the second end cap to the case includes welding the tab flat against an inner face of the second end cap.

69. (previously presented) The method of claim 66, further comprising:
positioning a mandrel on the pin; and
winding the first electrode strip together with the second electrode strip so as to form the spiral roll, the spiral roll being formed after positioning the mandrel on the pin.

70. (previously presented) The method of claim 69, wherein a portion of the first electrode strip is positioned between the mandrel and the pin.

71. (previously presented) The method of claim 69, further comprising:
crimping the mandrel to the pin before winding the first electrode strip together with the

second electrode strip.

72. (previously presented) The method of claim 69, further comprising:

welding the mandrel to the pin before winding the first electrode strip together with the second electrode strip.

73. (previously presented) The method of claim 69, wherein the mandrel is positioned on the pin such that the mandrel is in electrical communication with the pin.

74. (previously presented) The method of claim 66, wherein the pin extends through the first end cap before the first end cap is fastened to the case,
the end cap including an electrical insulator.

75. (previously presented) The method of claim 74, wherein the first end cap includes a conductive member surrounding the insulator.

76. (previously presented) The method of claim 69, wherein the mandrel includes a tube.

77. (previously presented) The method of claim 76, wherein positioning the mandrel on the pin includes positioning the pin in an interior of the tube.

78. (previously presented) The method of claim 69, wherein the mandrel has a c-shaped cross-section.

79. (previously presented) The method of claim 69, wherein positioning the mandrel on the pin includes sliding the mandrel onto the pin.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.